

REMARKS

The Office Action dated July 12, 2006, has been received and carefully considered. As an initial matter, Applicants note that the prior Final rejection has been removed and this rejection is a non-final rejection. Claims 1-42 stand rejected. In response, Applicants respectfully submit that the claims patentably distinguish from the cited references. Further, Applicants have amended the claims to clarify the flexible nature of the magnetic ring of this application which is not shown in the cited references. Accordingly, reconsideration and allowance is respectfully requested.

The basis for the removal of the Final rejection of the claims of this application is that the Examiner has provided an English translation of Japanese patents Noburo and Kenji.

Turning to the Noburou patent, as previously discussed, disclosed is retainer ring that must be rigid to work as intended. The English translation supports this position. In addition, the retainer ring of Noburou also utilizes a heavy ring that uses weight to control the unwinding of the welding wire. In this respect, Noburou discloses a "presser" member 15 which controls the unwinding of the wire from the container. Presser member 15 controls the unwinding of the welding wire by "its self-weight." *Abstract, line 8*. Noburou utilizes weight to control the unwinding. In addition, the presser member includes upwardly opened portions configured to receive large permanent magnet members 15b. These magnets stick up above the top surface of the ring and are spaced about the top annular surface of the ring. In order to receive magnet members 15b, presser member 15a must have a significant thickness to produce the disclosed pockets. In order to support the weight of the magnets so that this ring can function, member 15a must be rigid. Otherwise, the pressing member would produce unequal forces on the welding wire and on the top of the wire coil. These unequal force would create stress points produced which would prevent the smooth unwinding of the wire from the coil. More particularly, the substantially point contact of the magnets on a flexible ring would create load or low points while the space between the magnets would create space portions or high points in the annular ring structure wherein the ring would be deformed regardless of the position of the existing wire being removed from the wire coil. This low and high situation would prevent the ring from

working as intended. The ring of the Noburo patent is designed and configured to be rigid.

The Kenji patent also discloses a rigid retainer ring. The English translation does support any other view. The Kenji patent also discloses a "pressing member" wherein weight is utilized to help control the unwinding of the welding wire. In several embodiments, presser member 5 has a flange-like configuration wherein the inner edge of his ring, the edge that is engaged by the wire, has an upwardly extending flange which by its very nature is rigid. The magnetic member 5b is reinforced by flange structure that prevents flexing. The other embodiment disclose a magnetic portion that is joined to a rigid support ring. The Kenji patent discloses a ring structure that is by its very nature configured to be rigid.

Even if Kenji or Noburo are made from a synthetic resin, neither disclosure discloses or makes obvious the recited flexible ring of this application.

The Farahmand patent discloses a device used to improve the condition of one's eyes. This is achieved by mounting a magnetic device to a pair of eyeglasses such that the magnetic field is placed directly in front of the eyes for an "optimum therapeutic effect". *Abstract, lines 5-7.* The magnets are configured to be mountable on a pair of eyeglasses by means other than magnetic attraction, such that Farahmand specifically limits the size of these magnets to be within the range of 1.15" to about 2.0" for the outer diameter. The inner diameter is limited to a hole in the range of 0.3" to 0.7". *Column 4, lines 64-67; Column 5, lines 1-6.* The strength of the magnets is limited to the range of 400 gauss to 1,000 gauss. *Column 4, lines 56-58.* The magnetic properties of the magnet in the Farahmand patent is for therapeutic effects on the eye only. The magnets are not intended to be attracted to other objects such as the eyeglasses to secure the magnets to the eyeglasses. The only exception is that the magnetic forces can be used to hold two magnets together. *Column 4, lines 10-11.* The Farahmand patent fails to disclose or make obvious the recited retainer ring of this application and there is not suggestion to combine the Farahmand patent with other retainer ring patents.

Claims 1, 8, 9, 12-16, 21, 22 and 38 were rejected under 35 U.S.C. §102(b) as being anticipated by Japanese Patent Noburo No. 04133973. Applicants respectfully submit that these claims are not anticipated by Noburo. As the Examiners know, for a

publication to anticipate under §102, "the reference must teach every aspect of the claimed invention either explicitly or impliedly." *TMEP* 706.02(IV). If any feature is not taught directly, the feature must be "inherently present." *Id.* Further, the claims of this application must be given their broadest reasonable interpretation consistent with the specification. *TMEP* §2111. *In re Hyatt*, 211 F.3d 1367, 1372, 54 U.S.P.Q. 2d 1664, 1667 (Fed. Cir. 2000). Further, the broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. *In re Cortright*, 165 F.3d 1353, 1359, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999).

Claim 1, as amended, recites a welding wire package comprising a "flexible permanent magnet retainer ring." This ring includes an inner edge which is engaged by the welding wire as it is unwound from the wire coil. Further, the recited ring is resilient such that the welding wire flexes the ring upwardly as it engages the ring. Noburo fails to disclose such a flexible ring. While the ring may be made from a non-metallic material, Noburo does not disclose flexibility. Applicants respectfully submit that claim 1 is not anticipated by Noburo.

Claims 8, 9, 12-16 and 21-22 are dependent from claim 1 and are not anticipated for at least the same reasons. Claims 8, 9 and 12-16, as amended, further patentable distinguish from Noburo by, for example, reciting a flexible magnetic ring having a uniform magnetic composition. As is stated above, Noburo discloses a ring structure having magnetic and non-magnetic portions wherein the ring structure is not a flexible magnetic retainer ring with uniform composition. With respect to claims 21-22 Noburo fails to disclose the outer periphery configuration wherein the ring follows the inner configuration of the wire coil.

Claim 38, as amended recites a welding wire package comprising a retainer ring having a bendable retainer ring body that is positioned on top of the upper ring shaped surface of the welding wire. This bendable ring is deflectable such that the welding wire flexes a portion of the ring as the wire is paid out while the remaining portion of the ring remains adjacent to the upper ring shaped surface. Noburo fails to disclose such a bendable ring body. As is stated above, Noburo does not even suggest a ring that can bend. Accordingly, Applicants respectfully submit that claim 38 patentably distinguishes from the cited references and is allowable.

Claim 1 was also rejected under 35 U.S.C. §102(b) as being anticipated by Japanese Patent Kenji No. 04112169. As with Noburo, Kenji fails to disclose the flexible permanent magnet retainer ring as is recited in claim 1. Like Noburo, Kenji does not even suggest a ring that is resilient such the welding wire can flex the ring upwardly as it is removed from the wire coil. Further, Kenji discloses a flange-like structure at the inner edge of the ring which by its very nature would prevent the flexing of the ring during the unwinding of the wire from the coil. Applicants respectfully submit that claim 1 patentably distinguishes from the Kenji and is allowable.

Claims 27-28 and 31-33 were rejected under 35 U.S.C. §102(b) as being anticipated by Farahmand 6,406,409. Claim 27 is not anticipated by reciting a retainer ring that is configured for use in a package of looped welding wire. As is known in the art, a package of welding wire is a large container of wire designed to retain hundreds of pounds of welding wire. Claim 27 further recites a flat sheet of flexible permanent magnet material which has an outer periphery with a diameter large enough to substantially cover the looped welding wire. Applicants respectfully submit that the Farahmand patent does not disclose such a retainer ring. Conversely, the Farahmand patent discloses a device designed to cover one eye piece of a pair of eyeglasses. Farahmand fails to disclose all elements of claim 27 and, therefore, cannot anticipate under §102.

The welding wire of this application could not be wound to such a small diameter as is shown in Farahmand without destroying the wire. As is discussed above, the welding wire is wound into a wire container such that the wire maintains a substantially straight configuration when it is removed from the container. This is necessary to maximize the weldability of the welding wire. Accordingly, Applicants respectfully submit that the Farahmand patent does not disclose all of the limitations of claim 27 and, therefore, does not anticipate this claim.

In addition, claim 27 recites a retainer ring that is resilient such that the welding wire which engages the inner edge of the ring flexes the inner edge of the ring upwardly. Farahmand does not disclose such a resilient ring.

Applicants respectfully submit that the only rejection of claim 27 is under §102 in view of the Farahmand patent. Accordingly, claim 27 is deemed to be in allowable form.

Claim 28 is dependent from claim 27 and is not anticipated for at least the same reasons.

Claim 31 is not anticipated by the Farahmand patent by reciting a retainer ring for use in a package of looped welding wire. The recited retainer ring is a flat sheet of permanent magnetic material that has an outer periphery large enough to substantially cover the looped welding wire. As is discussed above with respect to claim 27, the Farahmand patent does not disclose a retainer ring for welding wire. Further, the Farahmand patent does not disclose a retainer ring having an outer diameter large enough to substantially cover the wire coil in a package of welding wire. Accordingly, the Farahmand patent fails to anticipate claim 31. Further, claim 31 recites an inner opening having a diameter sized to allow the welding wire to pass through the opening during the unwinding of the wire from the package and the ring controls the unwinding of the welding wire based substantially on the magnetic properties of the ring. Farahmand fails to disclose such a ring.

Applicants respectfully submit that claim 31 was only rejected under §102 in view of the Farahmand patent. Accordingly, this claim is deemed to be in allowable form.

Claim 32 is dependent from claim 31 and is not anticipated by the Farahmand patent for at least the same reasons. As with claim 31, the only rejection of claim 32 is the 102 rejection in view of the Farahmand patent. Accordingly, claim 32 is deemed to be in allowable form.

Claims 35-37 were rejected under 35 U.S.C. §102(b) as being anticipated by Noburo or Kenji. Applicants respectfully submit that these claims are not anticipated by Noburo or Kenji. Claim 35, as amended, recites a method that includes the step of applying a flexible magnetic retainer ring on the top of the wire stack such that the ring applies a magnetic field to the top of the stack. This ring is formed by ferrite particles and a flexible binder such that the ring is deformable by the welding wire. As is stated above, Noburo and Kenji fail to disclose a flexible magnetic ring let alone the recited method of use of a flexible magnetic ring. Accordingly, these references fail to anticipate claim 35.

Claims 36-37 are dependent from claim 35 and are not anticipated for at least the same reasons. Claim 36 further patentably distinguishes the cited references by reciting

the ferrite particles and the non-magnetic binder extend between the inner and outer edges of the ring. The cited references fail to disclose such a ring configuration.

Claims 2, 28, 39, and 40-42 were rejected under 35 U.S.C. §103(a) as being unpatentable over Noburo as applied to claims 1, 8, 9, 12-16, 21, 22 and 38 discussed above. As is stated above, Noburo does not disclose a flexible ring that flexes when engaged by the wire. Applicants respectfully submit that Noburo also fails to make obvious the recited ring structure. Conversely, Noburo teaches away from the recited ring by disclosing large magnetic blocks that must be placed on a rigid “presser member.” Applicants respectfully submit that Noburo does not make obvious the recited flexible ring.

As is discussed in greater detail in the specification of this application, the function of a welding wire package is to facilitate the unwinding of welding wire from the wire coil without tangling and in such a way that the wire can be fed to a welding operation. As can be appreciated, tangling will cause unwanted downtime. Further, distortions in the wire can cause tangling and can reduce the efficiency of the welding operation. Therefore, minimizing distortions is also a factor in the unwinding of the welding wire.

The English translation of Noburo supports that Noburo discloses a presser member 15a which includes large magnets 15b positioned about the top of the presser member. The presser member is not magnetic. Only the large block-like magnets 15b are disclosed to be magnets. The other embodiments of Noburo also fail to disclose or make obvious the recited flexible magnet ring that is sufficiently resilient to flex upwardly when engaged by the welding wire. Conversely, Noburo discloses a rigid ring structure.

Claim 2 patentable distinguishes from Noburo by reciting a flexible permanent magnet retainer ring that is positioned on the top of wire coil wherein the welding wire is paid out through the central opening such that the welding wire engages the inner edge at a circumferential location. The ring is resilient such that the welding wire flexes the retainer ring upwardly at the circumferential location. Noburo fails to disclose or make obvious such a flexible ring structure. Claim 2 further patentably distinguishes from Noburo by reciting the ring having a thickness in the general range of 0.10-0.01 inches.

While claims 28, 39, 40-42 are not dependent on claim 2, the same is true for these claims. Noburo fails to disclose or make obvious a magnetic retainer ring that is flexible wherein the ring flexes upwardly when engaged by the exiting wire and fails to disclose a

ring having a thickness in the general range of 0.10-0.01 inches. This thin retainer ring configuration that is flexible would not evenly support the large magnets disclosed in Noburo which in turn would cause distortion in the welding wire of the wire coil and would fail to produce even unwinding of the welding wire. Accordingly, Applicants respectfully submit that Noburo fails to disclose or make obvious the thin walled flexible ring recited in claims 28, 39, 40-42.

Claims 2-7, 10, 11 and 17-20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kenji as applied to claim 1 discussed above. As is stated above, Kenji does not disclose a flexible ring. Further, Applicants respectfully submit that Kenji does not make obvious a flexible ring and, in fact, teaches away from the recited ring. As is stated above in greater detail, Kenji discloses a ring structure having an internal flange that prevents the recited flexing especially the flexing of the inner edge of the ring. This configuration by its very nature shows the Kenji was not attempting a flexible ring as is reciting in this application. This disclosed structure would prevent the recited flexing of the ring device. Accordingly, Applicants respectfully submit that Kenji teaches away from the flexible ring recited in this rejection.

In addition to the failure of Kenji to disclose or make obvious the recited flexible ring, Kenji further fails to disclose or make obvious the recited thin construction recited in claim 2. As with Noburo, Kenji disclosed significant structure above the annular base portion. Such a structure would not be supportable by a flexible annular component of the recited thickness. Accordingly, Applicants respectfully submit that Kenji fails to disclose or make obvious claim 2 which is deemed allowable.

Which respect to claims 3-7, 10, 11 and 17-20, Applicants respectfully submits that, as with claim 2, these claim are dependent from claim 1 and are allowable for at least the same reasons. In addition, these claims further patentable distinguish the cited references by reciting a ring structure having a uniform magnetic composition which is not found in the cited references nor made obvious by the cited references. Accordingly, Applicants respectfully submit that these claims are allowable.

Claims 29 and 33 were rejected under 35 U.S.C. §103(a) as being unpatentable over Farahmand as applied to claims 27-28 and 31-32 discussed above. As discussed in greater detail above, Farahmand fails to disclose the recited retainer ring of claims 27 and

31. Applicants respectfully submit that Farahmand further fails to make obvious the recited ring and claims 29 and 33 are dependent from these claims wherein they patentably distinguish from Farahmand for at least the same reasons.

Further, Farahmand is non-analogous art and, therefore, this rejection is improper. In this respect, Farahmand discloses magnets used to “improve the condition of the eyes, such as to provide relaxation, overcome tiredness, and create good feeling in the eyes” Farahmand, Abstract. The magnetic field in Farahmand is designed for therapeutic properties on the eyes; it is not even designed to maintain the patch relative to the eye glasses. The “magnetic flux is conducted into the musculature of the eyes and to the eyes themselves to counteract tiredness of the eyes, relax the eyes, and provide good feeling to the eyes.” Farahmand, Summary of the Invention, Column 2, lines 58-61. The hole in the middle is not for dispensing, but to look through; again used for therapeutic purposes. This eye care product, that utilizes a magnetic field for therapeutic purposes, does not make obvious the reciting retainer ring for a welding wire package that can hold over 2,000 pounds of welding wire.

Even if Farahmand is considered analogous art, it fails to disclose or make obvious the recited retainer ring for controlling the unwinding of welding wire from a coil of welding wire. It is acknowledged that Farahmand fails to disclose the recited strength of the magnets; however, applicant respectfully submits that Farahmand also fails to make obvious the strength of the recited magnets in that the determination of the magnetic strength is more than mere experimentation. Further, the therapeutic eye glasses of Farahmand do not rise to the level of teaching in the welding technology field to make obvious the magnetic retainer ring of this application. Farahmand also fails to disclose or make obvious a retainer ring having an outer periphery with a diameter large enough to substantially cover the coiled welding wire recited in claims 29 and 33. Accordingly, Applicants respectfully submit that claims 29 and 33 patentably distinguish from the prior art and are allowable.

Claims 23-26 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kenji as applied to claims 1, 2 and 4 discussed above and further in view of Srail 5,942,961. As discussed in greater detail above, Kenji fails to disclose the recited retainer ring of claims 1, 2 and 4. Kenji does not make obvious a flexible ring according to the

invention of these claims. In fact, Kenji teaches away from the recited flexible magnetic ring structure. The flange structure of Kenji would prevent flexing of the annular portion of the device as is recited in these claims. Accordingly, Applicants respectfully submit that Kenji does not make obvious the recited package, but teaches away from the flexible ring recited in these claims. Accordingly, Applicants respectfully submit that Kenji fails to disclose or make obvious these claims.

Turning to the thin ring construction recited in claim 25, Kenji's structure would significantly deform a thin walled flexible ring. Accordingly, Applicants respectfully submit that Kenji fails to disclose or make obvious claim 25.

Claims 30 and 34 were rejected under 35 U.S.C. §103(a) as being unpatentable over Farahmand as applied to claims 27-29 and 31-33 discussed above, and further in view of Srail. As discussed in greater detail above, Farahmand fails to disclose the recited retainer ring of claims 27 and 31. Farahmand's eye care product, that utilizes a magnetic field for therapeutic purposes, does not make obvious the reciting retainer ring for a welding wire package that can hold over 2,000 pounds of welding wire. Applicants respectfully submit that Srail fails to overcome the shortcomings of Farahmand wherein the combination of these references is improper and fails to disclose or make obvious the recited retainer ring. Accordingly, claims 30 and 34 patentably distinguish from the cited references and are allowable.

While Applicants have not made specific reference to every comment made by the Examiner in the above-reference Office Action, Applicants do not acquiesce to any of these comments or any other comment made. The above claims patentably distinguish the cited references for at least the reasons discussed in this response.


Applicants respectfully submit that each issue raised in the above-identified Office Action has been addressed by the amendments of this application. Accordingly, Applicants respectfully submit that claims 1-42 patentably distinguish from the cited

references and are allowable, whereby reconsideration and allowance is respectfully requested.

Respectfully submitted,

FAY, SHARPE, FAGAN,
MINNICH & McKEE, LLP

8/29/06
Date



Gregory S. Vickers
Reg. No. 19,504
1100 Superior Avenue
7th Floor
Cleveland, Ohio 44114-2579
(216) 861-5582

N:\LEEE\200301\US\IRMS0011003V001.doc